Air Pollution Control Board



Greg Cox District 1
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Ron Roberts District 4
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DATE: March 1, 2006

TO: San Diego County Air Pollution Control Board

SUBJECT: ADOPTION OF NEW RULES 61.3.1-TRANSFER OF GASOLINE INTO

STATIONARY UNDERGROUND STORAGE TANKS AND 61.4.1-TRANSFER OF GASOLINE FROM STATIONARY UNDERGROUND

STORAGE TANKS INTO VEHICLE FUEL TANKS (District: All)

SUMMARY:

Overview

Adoption by the Air Pollution Control Board is requested for proposed new Rules 61.3.1 and 61.4.1 to incorporate the requirements of the State Air Resources Board's (ARB) Enhanced Vapor Recovery Program for gasoline transfer and dispensing operations. Gasoline vapors are ozone precursors and contain benzene which is a toxic air contaminant. Rules 61.3.1 and 61.4.1 will supersede existing Rules 61.3 and 61.4 for the majority of gasoline facilities. Current Air Pollution Control District (District) Rule 61.3 (Transfer of Volatile Organic Compounds into Stationary Storage Tanks) and Rule 61.4 (Transfer of Volatile Organic Compounds into Vehicle Fuel Tanks) have specified vapor recovery requirements, primarily for gasoline facilities, for many years. These rules have become outdated for facilities affected by the State's new Enhanced Vapor Recovery requirements.

New Rule 61.3.1 will further control volatile organic compound emissions during gasoline transfers into underground storage tanks (Phase I Vapor Recovery). It requires facilities to install and maintain Phase I vapor controls certified by the ARB to meet Enhanced Vapor Recovery requirements. Virtually all facilities have already completed this upgrade. Rule 61.4.1 will further control emissions during gasoline dispensing into vehicle fuel tanks (Phase II Vapor Recovery). It will require most existing gasoline facilities to replace their Phase II vapor recovery equipment with a new certified system by January 2009.

In addition, both rules require each facility to follow an Inspection and Maintenance program to help ensure proper operation of vapor recovery systems and ongoing compliance. The rules also require contractors who install, modify, or repair vapor recovery systems to successfully complete manufacturer or ARB training and be responsible for compliance with specified rule provisions.

There are 889 retail and non-retail gasoline facilities in San Diego County with a total annual gasoline throughput of approximately 1.33 billion gallons. The volatile

organic compound emissions from these sources with existing vapor recovery systems are about 837 tons per year. New Rules 61.3.1 and 61.4.1 are expected to further reduce volatile organic compound emissions in San Diego County by approximately 447 tons per year, or 53.4%.

New Rules 61.3.1 and 61.4.1 are not proposed for inclusion in the State Implementation Plan for San Diego County because they impose State emission standards that go beyond federal requirements.

Recommendation(s)

AIR POLLUTION CONTROL OFFICER

- 1. Adopt the resolution adopting new Rules 61.3.1 and 61.4.1 and make appropriate findings:
 - (i) of necessity, authority, clarity, consistency, non-duplication and reference as required by Section 40727 of the State Health and Safety Code;
 - (ii) that an analysis comparing Rules 61.3.1 and 61.4.1 with existing requirements applicable to the sources affected by the proposed rules has been prepared pursuant to Health and Safety Code Section 40727.2;
 - (iii) that adopting Rules 61.3.1 and 61.4.1 will alleviate a problem and will not interfere with the attainment of ambient air quality standards (Section 40001 of the State Health and Safety Code); and
 - (iv) that the Air Pollution Control Board has actively considered the socioeconomic impact of adopting new Rules 61.3.1 and 61.4.1 pursuant to Section 40728.5 of the State Health and Safety Code and has made a good faith effort to minimize adverse socioeconomic impacts;
 - (v) that it is certain there is no possibility that adopting new Rules 61.3.1 and 61.4.1 may have a significant adverse effect on the environment, and this action is exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to California Code of Regulations, Title 14, Section 15061(b)(3).
- 2. Direct the Air Pollution Control Officer to report to the Air Pollution Control Board no later than April 2008 on the cost-effectiveness of requiring Phase II Enhanced Vapor Recovery at low-volume gasoline dispensing facilities and make a recommendation about the appropriateness of providing an exemption from these Phase II requirements to low-volume gasoline dispensing facilities.

Fiscal Impact

The recommended action will have no new or additional fiscal impact on the Air

Pollution Control District. Existing Air Pollution Control District resources will be used to evaluate, permit, and inspect facilities upgrading their vapor recovery systems.

Business Impact Statement

Rules 61.3.1 and 61.4.1 implement the State-mandated Enhanced Vapor Recovery program. The rules also include an Inspection and Maintenance program for facility operators to ensure that vapor recovery systems are properly operated and maintained. This requirement is already being implemented through District permit conditions and its inclusion in the rules will not adversely impact local businesses. Both rules also require any contractor engaged in the installation, repair, and maintenance of a vapor recovery system to complete all relevant training programs. Contractors/installers must comply with specified rule requirements. These provisions will assist owners and operators of gasoline dispensing facilities by holding contractors directly responsible if they improperly install or repair vapor recovery systems.

Advisory Board Statement

Consideration of new proposed Rules 61.3.1 and 61.4.1 by the Air Pollution Control District Advisory Committee was scheduled for its November 16, 2005, meeting. No Advisory Committee members attended. No comments or concerns with the proposed rules have been expressed by Advisory Committee members.

BACKGROUND:

Gasoline transfer, storage, and dispensing operations are a significant source of emissions of volatile organic compounds (VOC) which react in the atmosphere with nitrogen oxides to form ozone, the major component of photochemical smog. Gasoline storage and dispensing operations also emit toxic air contaminants. Despite significant improvements in air quality in the last fifteen years, San Diego County does not yet meet the State or Federal Ambient Air Quality Standards for ozone. Currently, VOC emissions from gasoline storage, transfer, and dispensing operations are regulated through the statewide vapor recovery program, adopted by the Air Resources Board (ARB), and reflected in local Air Pollution Control District (District) Rules 61.3 and 61.4. The program applies to gasoline transfer from mobile transport tanks into stationary storage tanks at gasoline dispensing facilities (Phase I vapor recovery) and to gasoline dispensing during refueling of vehicles (Phase II vapor recovery). It requires all vapor recovery systems to comply with specified performance standards and be certified by ARB.

The gasoline vapor recovery program is implemented through ARB Executive Orders and Certification Procedures and the corresponding rules and permits of local air districts. Gasoline transfer, storage, and dispensing operations in San Diego County are currently regulated by Rule 61.3 (Transfer of Volatile Organic Compounds into Stationary Storage Tanks) and Rule 61.4 (Transfer of Volatile Organic Compounds into Vehicle Fuel Tanks). Both rules were initially adopted in 1977 and last amended in 1990. Under the current vapor recovery program, VOC emissions from gasoline dispensing facilities in San Diego County have been reduced by approximately 92%, or about 10,300 tons per year.

In 2001, ARB promulgated Enhanced Vapor Recovery (EVR) regulations to improve the emission control effectiveness of the program. EVR regulations were subsequently amended several times and became effective in December 2003 with final implementation dates in 2009 and 2010. As a result, existing District Rules 61.3 and 61.4 have become outdated for facilities subject to the State EVR program.

Proposed new Rules 61.3.1 and 61.4.1 implement the State EVR program and fulfill the District's obligations under State law and the Regional Air Quality Strategy to adopt all feasible emission control measures. Both rules require gasoline emissions to be controlled with ARB-certified Enhanced Vapor Recovery systems. The systems must be installed, operated, and maintained in accordance with the most recent ARB Certification Procedures and Executive Orders. All vapor recovery systems must be free of defects as specified in State law and ARB Executive Orders. Defective components must be taken out of service immediately upon discovery until repaired or replaced. Components with minor defects must be repaired, adjusted, or replaced within seven calendar days. Facilities with an annual gasoline throughput of 600,000 gallons or more are also required by the State to install a certified In-Station Diagnostics (ISD) system which will detect some system problems and alert the facility operator so repairs can be promptly made.

New facilities or facilities undergoing major modification will have to comply with all applicable rule requirements at the time of installation and start-up. The Phase I EVR system upgrades required by Rule 61.3.1 are already in effect for existing facilities (the final compliance date in State law was April 1, 2005). The State-required Phase II EVR system upgrades at existing facilities, excluding the ISD installation, must be completed by January 2009. The final date for compliance with all Rule 61.4.1 requirements (including ISD) is April 2010. The rule authorizes the Air Pollution Control Officer to extend these compliance dates should ARB extend the dates under the State program.

In addition to the EVR requirements mandated by State law, both rules include an Inspection and Maintenance program with specified inspection frequencies at each facility, effective August 2006. Facilities are required to maintain accurate records of all inspections, maintenance, and repair operations as well as records of periodic compliance tests. Both rules will also extend responsibility for proper installation, modification, and repair of vapor recovery systems to contractors/installers of such systems. The rules also require contractors, installers, and testers of vapor recovery equipment to successfully complete relevant South Coast Air Quality Management District (or approved alternative), ARB and system manufacturer training programs.

The State EVR program applies to virtually all gasoline dispensing facilities, both retail and non-retail, regardless of their size. Low-volume gasoline facilities (with an annual gasoline throughput less than 600,000 gallons) are exempted by ARB only from the requirement to install ISD systems. The District has estimated the cost-effectiveness of the EVR program for retail and non-retail gasoline service stations in the county and has concluded that some parts of the

program (in particular Phase II EVR upgrades) may not be cost-effective for low-volume facilities. However, the State Air Resources Board staff contends that State law requires the District to implement and enforce vapor recovery regulations as promulgated by ARB, effectively disallowing any exemptions based on economic feasibility or cost-effectiveness for low-volume facilities. The District has discussed this issue at length with ARB legal and technical staff. As a result, ARB has agreed to work with the District over the next 18 months to cooperatively address Phase II EVR cost-effectiveness for low-volume facilities. ARB also agreed to propose revisions to its regulations by September 2007 if it is determined that Phase II EVR requirements are not cost-effective for low-volume facilities. The District will report to the Air Pollution Control Board no later than April 2008 on the outcome of this cost-effectiveness study and make a recommendation on the appropriateness of providing an exemption in Rule 61.4.1 for low-volume facilities.

Of the 889 facilities in San Diego County affected by the new rules, 704 are retail gasoline stations with a total annual gasoline throughput of approximately 1.25 billion gallons (94.1% of the county total) and 185 are non-retail stations with a total annual gasoline throughput of 73 million gallons (5.9%). VOC emissions from these sources, all of them subject to existing Phase I and Phase II vapor recovery regulations, are about 837 tons per year. Implementation of new Rule 61.3.1 will result in approximately 168 tons per year of additional VOC emission reductions. Rule 61.4.1, when fully implemented, is expected to achieve an additional reduction of about 279 tons of VOC emissions per year. Overall, both rules would reduce emissions from gasoline storage and dispensing operations by 447 tons per year (53.4%).

The District does not propose to include Rules 61.3.1 and 61.4.1 in the State Implementation Plan for San Diego County because they implement more stringent State-mandated emission standards that go beyond federal requirements. In addition, existing rules also control emissions from storage and dispensing of VOC from aboveground storage tanks and emissions from storage and distribution of organic compounds other than gasoline, such as alcohols, ketones, and organic acids. These operations are not regulated by the new proposed rules. Therefore, current Rules 61.3 and 61.4 will be retained as part of the federal State Implementation Plan.

A public workshop for proposed new Rules 61.3.1 and 61.4.1 was held on September 13, 2004, and was attended by 29 people. The comments and District responses are presented in the attached workshop report (Attachment B).

Socioeconomic Impact Assessment

Section 40728.5 of the State Health and Safety Code requires the District to perform an assessment of the socioeconomic impacts of new and revised rules that will significantly affect air quality or emissions limitations.

Proposed new Rules 61.3.1 and 61.4.1 will codify the implementation requirements of the statewide EVR program in the District Rules and Regulations. During the original promulgation of the EVR program, subsequent 2002 Technology Review and several subsequent amendments, ARB considered the potential economic impacts on businesses and individuals as required by the California Administrative Procedure Act and the Government Code. The overall cost-

effectiveness of the program was estimated by ARB as \$5.24 per pound of VOC reduced. ARB concluded that the EVR program will not "impose an unreasonable cost burden on gasoline dispensing equipment manufacturers, component suppliers, or gasoline dispensing facilities." ARB also stated that affected facilities are "most likely to pass on the bulk of the cost increase to gasoline consumers."

Rules 61.3.1 and 61.4.1 reflect the statewide EVR program already mandated by State law. The rules do not contain any other requirements which would significantly affect air quality or emission limitations, or the overall cost-effectiveness of the State program. The additional Inspection and Maintenance program included in the rules will not result in an economic hardship for affected facilities because it is already being implemented through the District permitting process. This self-inspection program actually assists a gas station owner or operator to identify the defects in a vapor recovery system before they are found by the District compliance inspectors, thus allow avoiding possible penalty costs. This is especially important for small businesses.

State laws do not specifically require ARB to assess the cost impact of any new or amended regulation on small businesses. However, the District is required by Health and Safety Code Section 40728.5 (b)(3) to estimate the range of probable costs for small businesses. In addition, the Board directed the District to provide a Business Impact Statement for any new or amended rule. The District has evaluated the economic impact of the proposed rules on low-volume facilities (annual gasoline throughput less than 600,000 gallons). The results of the evaluation are provided in the Attachment C.

The District has concluded that Phase II EVR upgrades may not be cost-effective for low-volume facilities. By necessity, these estimates are preliminary because only one Phase II EVR system has been certified by ARB. It is expected that the cost of retrofits may decline when more Phase II EVR systems are certified by ARB. However, the State Air Resources Board staff contends that State law requires the District to implement and enforce vapor recovery regulations as promulgated by ARB, effectively disallowing any exemptions based on economic feasibility or cost-effectiveness for low-volume facilities. The District discussed this issue at length with ARB and ARB has agreed to revisit the Phase II EVR cost analysis for low-volume facilities within the next 18 months. The District expects that ARB will be able to reassess its cost analysis for low-volume facilities by September 2007. Once ARB has completed its re-evaluation and determined whether changes to Phase II EVR requirements are appropriate, the District will report to the Board with a recommendation concerning the appropriateness of including a Phase II EVR exemption in Rule 61.4.1.

Compliance with Board Policy on Adopting New Rules

On February 2, 1993 (APCB #2), the Board directed that, with the exception of a regulation requested by business or a regulation for which a socioeconomic impact assessment is not required, no new or revised regulation shall be implemented unless specifically required by federal or State law. New Rules 61.3.1 and 61.4.1 are required by State law and therefore are consistent with this Board directive. The District found it necessary to include in both rules additional self-inspection and maintenance requirements (I&M program) that strengthen the rules

and improve their enforceability. These I&M requirements are currently required through District permit conditions. The program will also provide businesses additional tools for complying with the rules.

Environmental Statement

The California Environmental Quality Act requires an environmental review for certain actions. The District has conducted a preliminary review of whether the California Environmental Quality Act applies to the proposed Rules 61.3.1 and 61.4.1. It is certain there is no possibility that adopting new Rules 61.3.1 and 61.4.1 may have a significant adverse effect on the environment. Therefore, adoption of new Rules 61.3.1 and 61.4.1 is exempt from the provisions of the California Environmental Quality Act pursuant to California Code of Regulations, Title 14, Section 15061(b)(3).

Comparison to Existing Requirements

Prior to adopting, amending, or repealing a rule or regulation, California Health and Safety Code Section 40727 requires findings of necessity, authority, clarity, consistency, non-duplication, and reference. As part of the consistency findings to ensure proposed rule requirements do not conflict with or contradict other District or federal regulations, Health and Safety Code Section 40727.2 requires the District to perform a written analysis identifying and comparing the air pollution control standards and other provisions of new Rules 61.3.1 and 61.4.1 with existing or proposed District rules and guidelines and existing federal rules, requirements, and guidelines applicable to the same source category. The requirements of new Rules 61.3.1 and 61.4.1 have been compared to federal requirements, to the District's New Source Review rules and to existing Rules 61.3 and 61.4. The analysis is attached (Attachment D). Rules 61.3.1 and 61.4.1 neither contradict nor duplicate any federal or District requirements.

Linkage to the County of San Diego's Strategic Plan

New Rules 61.3.1 and 61.4.1 align with the Environment Initiative of the County's Strategic Plan because both rules will result in sizeable additional air contaminant emission reductions and thus help to preserve air quality and to protect the public from the harmful effects of air pollution, achieve and maintain air quality standards, and meet federal and State mandates. New Rules 61.3.1 and 61.4.1 appropriately balance preserving air quality, protecting public health, and meeting economic development needs.

Respectfully submitted,

CHANDRA L. WALLAR

Chandra Walla

Deputy Chief Administrative Officer

RICHARD J. SMITH
Air Pollution Control Officer

ATTACHMENTS

- A. Resolution adding new Rules 61.3.1 and 61.4.1 to Regulation IV of the Rules and Regulations of the San Diego County Air Pollution Control District
- B. Workshop Report
- C. Economic Evaluation
- D. Comparative Analysis

SUBJECT: ADOPTION OF NEW RULES 61.3.1-TRANSFER OF GASOLINE INTO STATIONARY UNDERGROUND STORAGE TANKS AND 61.4.1-TRANSFER OF GASOLINE FROM STATIONARY UNDERGROUND

STORAGE TANKS INTO VEHICLE FUEL TANKS (District: All)

AGENDA ITEM INFORMATION SHEET

| CONCURRENCE(S) | | 1 101 |
|---|---------|----------|
| COUNTY COUNSEL REVIEW Written disclosure per County Charter | [X]Yes | 2/15/06. |
| Section 1000.1 required | [] Yes | [X]No |
| GROUP/AGENCY FINANCE DIRECTOR | [] Yes | [X]N/A |
| CHIEF FINANCIAL OFFICER | []Yes | [X]N/A |
| Requires Four Votes | [] Yes | [X]No |
| GROUP/AGENCY INFORMATION | | |
| TECHNOLOGY DIRECTOR | [] Yes | [X]N/A |
| CHIEF TECHNOLOGY OFFICER | [] Yes | [X]N/A |
| DEPARTMENT OF HUMAN RESOURCES | [] Yes | [X]N/A |
| Other Concurrence(s): N/A | | |
| ORIGINATING DEPARTMENT: Air Pollution Control District, County of San Diego | | |
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AUTHORIZED REPRESENTATIVE:

Richard J. Smith, Air Pollution Control Officer

AGENDA ITEM INFORMATION SHEET

(continued)

PREVIOUS RELEVANT BOARD ACTIONS:

October 16, 1990 (APCB #3), Amended Rules 61.3 and 61.4.

BOARD POLICIES APPLICABLE:

N/A

BOARD POLICY STATEMENTS:

N/A

CONTRACT AND/OR REQUISITION NUMBER(S):

N/A